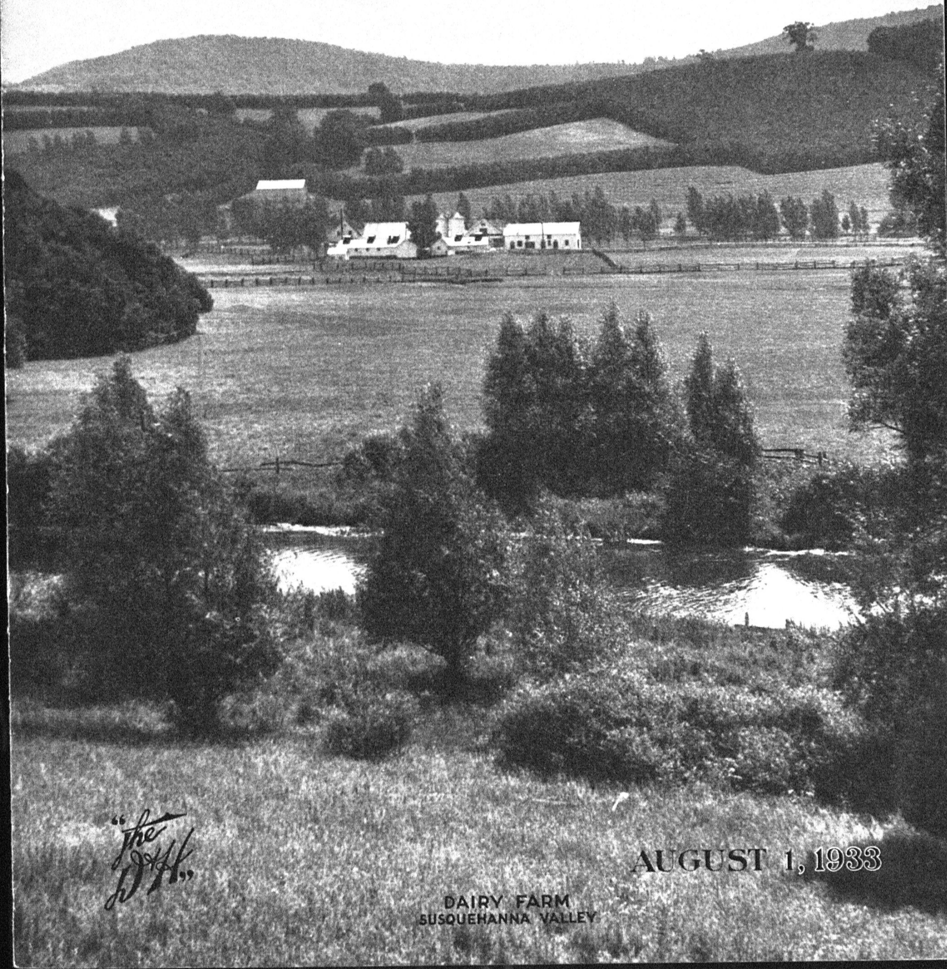
THE DELAWARE AND HUDSON RAILROAD BULLETIN



"the D&H"

AUGUST 1, 1933

DAIRY FARM
SUSQUEHANNA VALLEY

Back to the Farm

I'M tired of living on the close crowded street,
With its rattle and roar and the loud tramp of feet,
With its jangle and tangle and mountain of worry,
With its moans and its groans and disconsolate hurry.

So now I've gone back to the old rugged farm,
With its full wealth of life and its unmeasured charm,
With its hopes and its aims and its pure joys supreme
And visions as clear as a youth's fondest dream.

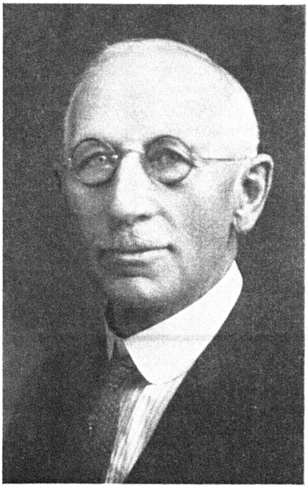
And across the wide meadows my eye shall e're roam,
Feasting long on God's country, I call my own home,
Where kinsmen may gather from near and from far,
To renew lifelong friendships which time shall not mar.

—W. W. RAYFIELD in *N. Y. State Education.*

The
DELAWARE AND HUDSON RAILROAD
CORPORATION
BULLETIN

Engine Crews Wore Veils

When Retired Conductor Began Railroading on the R. & W.



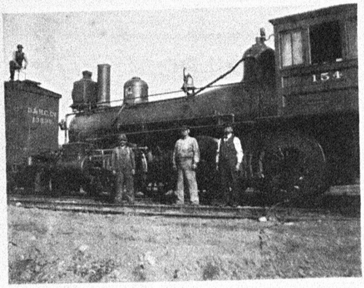
GEORGE T. BRUCE

THE days when engine crews wore goggles and veils, after the manner of automobilists of 25 years ago, are recalled by retired conductor GEORGE T. BRUCE as he looks back over nearly 53 year's service, principally on the Delaware and Hudson's Rutland and Washington Branch. In the earliest days of the R. & W., wood-burning locomotives were used, wood stops being provided at Shushan, Salem, Rupert and other points along the road. The wood train was kept constantly "on the move" replenishing the supply of fuel at these sheds and it was a great temptation, to which GEORGE sometimes yielded, to skip school and "throw wood" for a ride on the train. Later "brick" coal, or coal dust cemented together with tar and pressed into bricks, was introduced. The tar affected the skin and eyes of the crews, causing a painful burning so that many of the men wore goggles and also veils protecting their faces and necks. With the introduction of soft coal and anthracite as locomotive fuels the face coverings were relegated to the discard.

The Bruce family naturally went into the transportation business as a life work. Before the construction of the Rutland and Washington the father drove a four-horse team between Troy and Salem, N. Y., this being the only available means of carrying freight between the two cities. With the opening of the Civil War the elder Bruce enlisted in the Union Army. Upon his return to Salem four years later, the railroad with its greater speed and efficiency, had supplanted "over the road" freighting. Naturally, he found employment with the new carrier, and, as they grew to manhood, his four sons in turn entered Delaware and Hudson service, one firing and three braking.

When GEORGE finished his schooling and expressed his desire to go to work on the railroad, both his father and his mother felt that it was too dangerous an occupation for the boy. Air brakes and automatic couplers were as yet unknown and accidents were frequent. In the end GEORGE won their consent and, on November 3rd, 1879, started braking for conductor Charles Potter. Each day they took a passenger train from Rutland to Eagle Bridge, returning that night on a freight train. "Charlie" Frost was conductor on the opposite side of the "job," running the passenger train from Eagle Bridge to Rutland and the Freight in the opposite direction.

With the closing of the Salem shops many of



Old days on the R. & W.

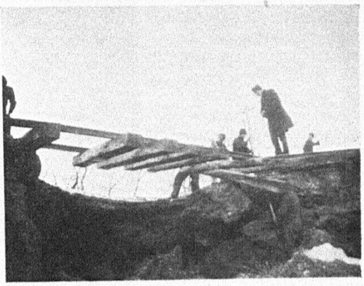
the R. & W. crews were shifted to run out of Green Island and Whitehall. Previous to this transfer MR. BRUCE, following in the footsteps of his elder brother, tried his hand at firing, later being promoted to the right side of the cab. Veil-wearing did not appeal to him, however, so he went back to braking until his promotion to conductor February 1, 1892, which position he held until his retirement August 1, 1932.

Business boomed on the R. & W. in those early days and it was often necessary for the way freight crew to double back between Castleton and Poultney to get the cars they couldn't take over the hill on the first trip. As many as 75 cars of potatoes a day were moved out of Washington County in the height of the season along with hundreds of cars of slate and other commodities.

During his half-century in train service MR. BRUCE had many narrow escapes, one of which, at least, seems little short of miraculous. In the middle of February 1900 terrific floods swept through Vermont washing out bridges and undermining the track. At 4 o'clock on the morning of the **14th** an extra in charge of MR. BRUCE came **suddenly** upon a washout just north of Poultney **the engineer** being unable to stop the train before it had **passed** over a spot the condition of which is shown **in the** accompanying illustration. Roadmaster "**Mike**" Sheehan afterward refused to believe that any **train** could have made such a crossing in safety.

Vermont floods, February 1900

MR. BRUCE is an experienced motorist, so **he can** see both sides of the problem, yet he fails to **understand** the increase in the number of collisions **between** road and rail vehicles. In many cases **he has** seen automobiles run into the side of the **locomotive**, often as far back as the gangway, **although** the view of the track was unobstructed for as **much** as a mile. Perhaps we were all better off **before** the motor car was invented; back in the days **of the** "old-fashioned winters" when there was three **feet** of snow on the ground at the time of the "**turkey** shoot" on the hill back of the old Salem shops **just** before Thanksgiving!



After the train had passed

MR. BRUCE now resides with his daughter, Mrs. Mildred C. Conder, at 43 First Street, Albany. His brother, William E., is a conductor on **the** Lake George run. A second daughter, Mrs. Georgiana McClellan, lives in Detroit.

Home Economics

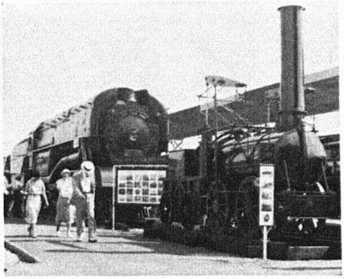
Cohen and his family sat down to dinner **on** Sunday. To his three little boys Cohen **said**: "Now children, which of you would vant it **a** nickel instead of meat for your dinner?"

Each of the three decided in favor of the **cash** settlement, so Mrs. Cohen put the meat away. Then she brought in the pie and put it on **the** table.

"Now my children," inquired Cohen, "how many of you vant a nickel's worth of pie?"

"the D&H" Exhibits at "A Century of Progress" Exposition

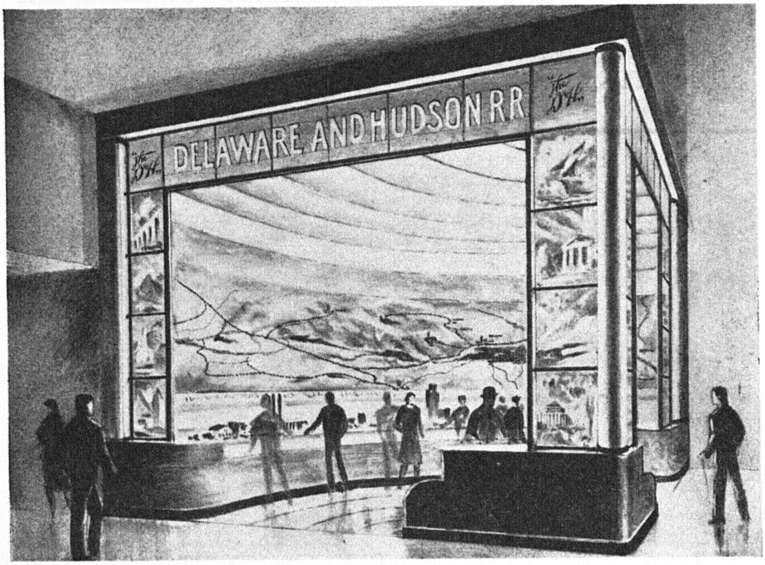
HOW the Delaware and Hudson's *Stourbridge Lion,* first locomotive to be run on an American railroad, August 8th, 1829, came to go to the "Century of Progress" Exposition at Chicago in 1933 was told in the May issue of *The Bulletin* in an article describing the construction at Colonie Locomotive Shops of a replica of the original machine. In the same issue there was a description of the *L. F. Loree,* Delaware and Hudson Locomotive No. 1403, which also went to the exposition with the *Lion,* thus completing, as far as steam locomotive construction is concerned, not only a century of progress but, in effect, its entire history on this continent.



Our locomotives on display

That the *Stourbridge Lion* had previously visited Chicago is, perhaps, news to many *Bulletin* readers, but the fact remains that, in 1893, the *Lion,* in replica, journeyed to the World's Columbian Exposition as shown in the accompanying illustration.

In addition to the locomotive exhibits, the Company also has an indoor booth, an artist's conception of which is also shown. Centering about the column in the foreground a mural painting, curving

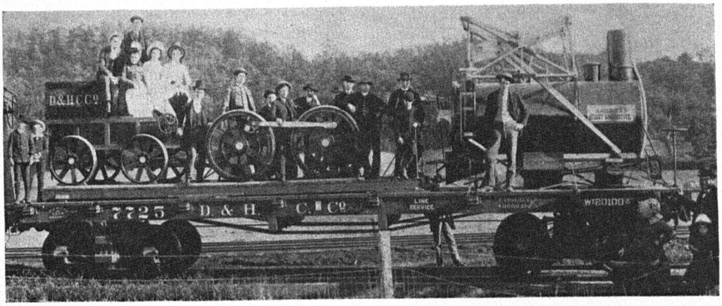


through a quarter-circle, portrays a panoramic view of the Delaware and Hudson territory from Wilkes-Barre and Binghamton to Montreal. It shows the location of the various cities, lakes, mountains and other points of interest along the lines.

Below and in front of the painting is a group of relief maps, modelled exactly to scale by members of the Engineering Department, and showing (1) the Marvine Breaker, Scranton, Pa., where Delaware and Hudson anthracite is prepared for market, (2) the Port of Albany, including the largest single-unit grain elevator in the world, (3) the Hotel Champlain and cottages at Bluff Point, N. Y., and (4) the plant of the Chateaugay Ore and Iron Company at Lyon Mountain, N. Y.

A series of photographic transparencies depicting scenes at various points in the Adirondacks, on Lakes George and Champlain, in Ausable Chasm and the Hudson and Susquehanna Valleys is used between the relief maps and the corner posts of the booth.

Glass cases containing specimens of the various products of the Company's subsidiaries and of the region traversed by the railroad are placed in front of and below the relief maps. The marble floor and counters, the color scheme of gunmetal, chromium and black, and a generous use of electric lights, all of which are concealed from view, produces a most pleasing effect.



"Stourbridge Lion" Chicago-bound in 1893

"If the Coat Fits—"

SOME boys were playing ball in the park. The game was getting warm, their cheeks were flushed and the spirit of the contest flashed in their eyes. They laughed, they shouted. With might and main they battled.

And then one of them knocked a long fly. It landed in the street, right on the car track. Vainly, a little urchin tried to recover it in front of an approaching car. With a cruel smile, the motorman turned on the current and dashed over the ball.

I looked back. There stood the boy with the flattened ball in his hand. There was something pathetic about him. The game was ended, the fun turned to tragedy.

It made me think of the time a boy had stopped me in the street and said, "Mister, my dog is dead!" There in the street lay a big, innocent collie. A pool of blood near its mouth told the story. The boy looked after a sedan just topping the distant hill, and said, "They did it."

The man who drove that automobile was no worse than the motorman who wilfully ran over a baseball. The motorman had smiled. Perhaps the man in the sedan had smiled.

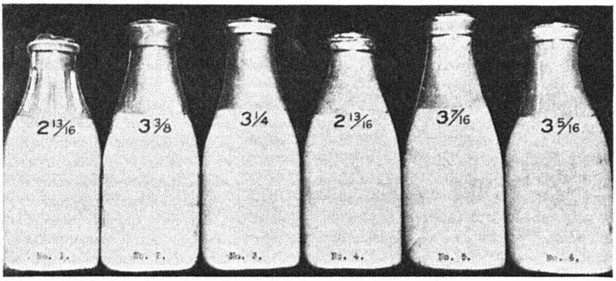
The boy with the dog will grow up and become a man of affairs. He will be busy and hurried to death. Will he forget to be kind and sympathetic? The boy with the baseball will grow up, too. I wonder if he will forget.

Sympathy is cheap, and it is worth while. Kindness is not bought with money—its value lies in giving it away.

Boys who grow up and forget that they were once boys are missing the big things in life.

What we need from all boys—regardless of age—more than we need their energy and their brains, is more kindness and sympathy!—*Rays of Sunshine.*

The Milk We Drink



VARIATIONS IN CREAM LINE

Each bottle contains the same amount of cream, variations in depth resulting in differences in shape of bottles

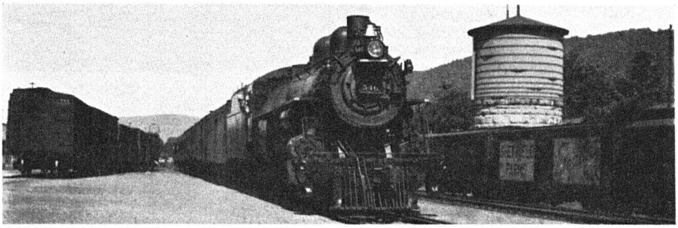
SOME day, perhaps, some nation will erect a statue of a cow to commemorate that gentle animal's many benevolences to the human race. Certainly there is no other dumb creature to which man owes so much or upon which he depends so greatly. More than a half-century ago, *Household Words,* a British publication, acknowledged this debt in a tribute from which the following is a quotation:

"If civilized people were ever to lapse into the worship of animals, the cow would certainly be their chief goddess. What a fountain of blessings is the cow! She is the mother of beef, the source of butter, the original cause of cheese, to say nothing of shoe-horns, hair combs, and upper leather. A gentle, amiable, ever-yielding creature who has no joy in her family affairs which she does not share with man. We rob her of her children that we may rob her of her milk, and we only care for her when the robbing may be perpetrated."

From time immemorial cow's milk has been a leading food, and in the care and upbringing of children it has become indespensable. Other animals are important sources of milk in some places—the reindeer in the northlands, camels in the desert, sheep and goats elsewhere; but, even so, the term milk commonly denotes the product of the docile cow.

Milk and its products have been articles of commerce down through the ages; but only recently has the business attained the status of what we now call the dairying industry. The cow, the very embodiment of peace and tranquillity, has been drawn nearer and nearer the vortex of that great swirl in modern civilization termed merchandising. At one time virtually every family kept a cow; today there are vast cities where children grow up without ever seeing one. New York City obtains some of its milk supply from as far as 400 miles away, much of it coming from the Susquehanna and Champlain-Hudson Valley milk sheds whence it travels on Delaware and Hudson milk trains on its way to the ultimate consumer.

Milk is a very complex compound. It consists



Milk train at start of trip

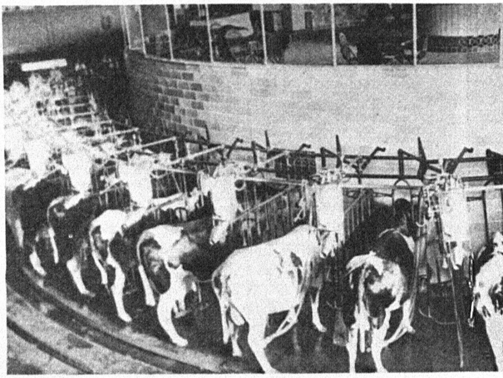
essentially of an emulsion of fatty globules—the cream—in a watery, alkaline solution of casein and of a variety of sugar called lactose. The fat and the lactose are carbonaceous in character. The casein, the principal ingredient in cheese, and some of the albumin, are nitrogenous. Milk also contains phosphoric acid, chlorine, lime, soda, potash, magnesia and iron-oxide. When fresh, it has some hydrogen sulphide gas dissolved in it, but this escapes after short exposure. Milk does not have a fixed composition. Its makeup varies rather widely with the breed of cow which gives it, and even the product of the same cow fluctuates from time to time.

Not so long ago milk was called the perfect food, but since the discovery of vitamins this estimate has had to be revised. Vitamin A and G are abundant in milk and withstand ordinary pre-marketng treatment. Vitamins B and C are present in small amounts in raw milk, and some of these are destroyed by pasteurization. Vitamins D and E are found in milk, but in negligible quantities as compared with some other foods. The discovery of these deficiencies has led some dieticians to advocate raw milk as a child food and has brought agreement among all authorities that milk, whether raw or pasteurized, must be supplemented by certain desirable foods which contain the lacking vitamins. The shortage of Vitamin D is of chief concern, and it is to offset this that cod-liver oil or some other substance rich in Vitamin D is recommended for child feeding. As a protection against scurvy, the milk diet is augmented by orange juice, tomato juice, potato water, or some other food of high Vitamin C content. It has also been ascertained that it is possible, by controlling the fodder of cows, to introduce certain vitamins in natural milk. A specific instance of how this is done will be mentioned later.

Notwithstanding the recent revelation of its shortcomings, milk is still easily the most important single food we have, and it is only natural that great care should be taken in safeguarding its purity. The production and marketing of milk are supervised by federal, state, county and municipal agencies. The closeness of the supervision increases with the density of the population, reaching its height in the larger cities.

Despite its many virtues, milk has at times been a great enemy to public health. It carried disease germs broadcast, and epidemics ensued. Some milk-borne epidemics still occur, but with less frequency year by year. The U. S. Public Health Service is authority for the statement that in the seven-year period of 1924-30, as many as 327 outbreaks of contagious diseases in this country were traceable to milk—an average of 47 a year. Most prevalent among them were: typhoid fever, 217; scarlet fever, 40; septic sore throat, 33; diphtheria, 8. These, and tuberculosis, have long been known as the most dangerous diseases which might be spread by milk. Virtual eradication of the tuberculosis hazard has been effected by instituting a regular examination of milk cows and by eliminating those animals that fail to show a negative test. Control of the others is exercised by treating the milk before selling it. Most important in this treatment is the process of pasteurization.

Strangely enough, pasteurization was first applied to wine. Experiments by the eminent French scientist, Louis Pasteur, showed that heating wine to from 120 to 140 dergrees Fahrenheit would prevent abnormal fermentation and souring. He later found that a similar treatment kept beer from souring. Pasteur made his discoveries prior to 1865; but not until many years later was it generally recognized that the heating of milk protected the public health. Dealers, however, early learned that application of heat improved the keeping qualities of milk, and they surreptitiously practiced a crude form of pasteurization. Heating for health promotion was first recommended in 1889; but the public refused to accept the theory and consistently opposed pasteurization. Cincinnati was the first



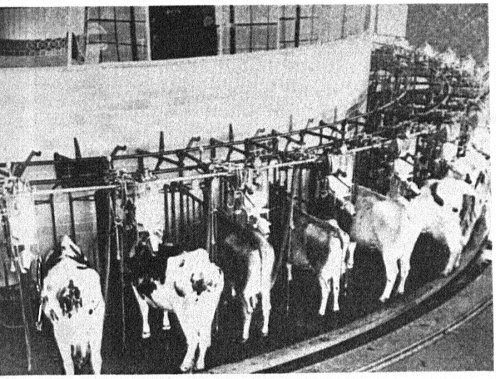
TAKING BOSSY FO

Walker-Gordon cows are mechanically milked three ti
which is termed the Rotolactor. Each animal is washed with
taken from her during the 12½ minutes she spends in making
water pressure is alternately applied and discontinued 43 times
action of human hands. The milk is delivered into a glass re
and a card-index is kept of production. The animals are reta
The cows enter and leave the milking room via tunnels from t
four a minute. They arrive in the same order each time, an
arrangement enables the checker at the weighing station to kee

large city to adopt it, in 1897. New York instituted it in 1898, Philadelphia in 1899, St. Louis in 1900, Boston and Chicago in 1908. Consumers still were not convinced of its benefits, however, and many dealers who pasteurized dared not admit it to their patrons. New York City in 1906 prohibited clandestine pasteurization, and in 1910 began to regulate the time and temperature of the process.

Although it is agreed that pasteurization makes milk a safer food, health experts have long been in controversy over the relative growth-producing qualities of raw and pasteurized milk. Statistics gathered by the U. S. Public Health Service, and involving 3,700 children between the ages of two and six, tend to show that there is no significant difference in the rate of weight increase resulting from feeding either raw or pasteurized milk predominately, but there is considerably more diphtheria, scarlet fever, intestinal disturbance, and rickets among children using raw milk.

The proponents of raw milk contend that it is possible to safe-guard such milk against carrying disease, and that as a nutriment it is preferable to pasteurized milk. Considerable raw milk, produced under rigid control and certified as to purity, is marketed in some of the larger cities and commands a price premium. Such is the product of the Walker-Gordon Laboratory Company, Inc., whose model farm and plant have some unique and interesting features. Starting with 40 acres and 19 cows they now have 3,500 acres and 2,500 cows, of which but 200 animals belong to the company. The others belong to farmers, but they live on the farm and are under company control. Owners are paid an agreed price for the milk their stock produces.



BOSSY FOR A RIDE

ed three times daily, 50 at a time, on this rotating platform
shed with a water spray, dried by warm air, and has her milk
in making a complete revolution. A vacuum of 15 inches of
43 times a minute by electrical control, thus simulating the
a glass receptacle above each cow; is automatically weighed;
als are retained only so long as they continue to pay their way.
els from the barns, and step aboard the turntable at the rate of
h time, and the last cow from each barn wears a bell. This
ion to keep his records straight.

On this farm 200 cows are kept on a special diet which is designed to produce milk of high Vitamin D content. Any of several foods can be used, but irradiated yeast seems to be the most successful. The success of these experiments indicates that the cow may be likened to a machine, and that by controlling the raw material—her food—it may eventually be possible to correct the vitamin deficiencies now in her milk. Thus milk may yet attain the status of a perfect food that was for a long time erroneously ascribed to it.

Pasteurization, as now fairly well standardized, thanks largely to municipal regulation, comprises heating every particle of milk to a certain minimum temperature (generally 142 degrees Fahrenheit, but varying from 140 to 145), holding it at that point for a prescribed time, (usually 30 minutes), and cooling it rapidly. This kills 99 per cent of the contained bacteria, leaving the desirable lactic acid bacteria which cause milk to sour and only a small portion of the peptonizing bacteria which cause it to decompose. The nutritive value and digestibility of the milk are not significantly changed. Higher heating, particularly above 145 degrees, has some undesirable effects, chiefly the changing of some of the soluble elements to insoluble ones.

From a commercial standpoint there are two reasons for heating only to the minimum requirement. It takes less heat, and is therefore less costly. It leaves virtually all the cream-forming fat globules in their natural state and, accordingly, does not lower the "cream line" when the milk is bottled. Consumer purchases are dictated by the eye. The fact that the cream is there, but not in a form that reveals it, is a poor sales argument. All dealers, therefore, strive to attain a deep cream line. Pasteurization at 145 degrees or 146 reduces the cream line about 8 per cent, and at 148 by as much as 31 per cent.

Milk is still perishable after pasteurization, and for this reason it must be cooled immediately, temperatures between 33 and 40 degrees being satisfactory to practically prevent bacterial growth in 24 hours.

"Flash" pasteurization—heating the milk to a temperature of 160 degrees or more for about one

(Continued on page 123)

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Vol. 13 **August 1, 1933** **No. 8**

Sun Baths

DURING the summer season many people are greatly benefited by exposure to the sun's rays. There are others, however, who suffer injury and considerable discomfort from such exposure. There are both beneficial and harmful results from taking sun baths.

After exposure to the sun there is an increase in body energy. The mind becomes more active, there is an increased feeling of well-being and one feels stronger.

Sun baths also tend to relieve the congestion of the internal organs and to lower the blood pressure. The number of red blood cells increases. The kidneys are stimulated to greater action. The depth of breathing increases, and the blood becomes richer in oxygen.

The exposure of untanned skin into the sun's rays for a period of more than five minutes frequently produces injuries, painful results.

The blood vessels of the skin are dilated and congested, producing redness. If prolonged exposure has been experienced, the skin becomes inflamed and blisters are formed.

The systemic effects from severe sunburn are headache, lassitude, increased temperature, diarrhea, sometimes vomiting, and in the most severe cases prostration.

First sun baths should not last more than five minutes. Gradual exposure of the feet and the upper part of the shoulders at first is the best procedure, then the time and extent of the body exposed can be increased.

You can be guided by your own reactions. The sun bath should leave you glowing and not exhausted. The early morning hours and the late afternoon hours are the best because one gets more light than heat at these times.

Use vinegar on the exposed parts of the body both before and after sun baths—*The Carnation.*

Theories vs. Work

AN amusing story has come out of China. It concerns the influence of Bolshevism on Chinese peasantry. An aged mandarin rose to address a Bolshevized crowd in Peking.

"My brothers," he began, "you are working men."

"Hurrah! Glory!"

"And being working men—"

"Hurrah! Glory!"

"You must work."

"* * * Throw him out! Down with him! Tear out his false, lying tongue! * * *"

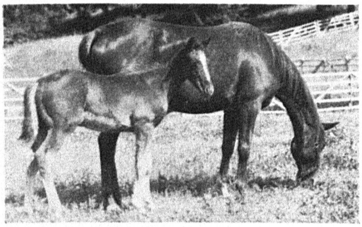
The tale illustrates admiraby the often cataclysmic difference between theories and fact. With much of the civilized world in a state of seething turmoil and unrest, with conflicting propoganda and opinion beating fiercely upon our established beliefs and precedents, it is not surprising that the average individual's state of mind is one of bewilderment. Perhaps this explains the apparent callousness and indifference he displays towards anything he does not completely understand.

Hard work is a weather anchor for the most severe storms. It has yet to prove unreliable when put to a test. While theories are disproven and discarded, while social and economic structures are modified and changed, the world goes on—thanks to work. We shall continue to work—*The Synchroscope.*

Aspiration

IT must become the prime function of man to aspire, to reach a higher level, to get into a clearer light, to rise into something nobler and purer and better. There comes to every man at times a sense of something above him, something that wins him and draws him to himself.

It is this quality of aspiration that keeps the nature fresh, that renews the faculties and makes them keen and strong for opening paths into the higher realms of life and truth. Without this quality one plods along on the same dusty level, labor turns into drudgery, or worse still, one becomes contented with things as they are.—*T. T. Munger in "Trotting Veck Messages."*



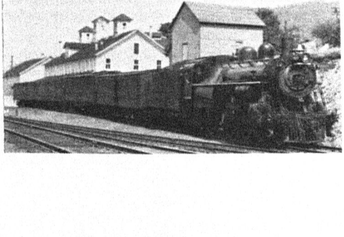
The Milk We Drink

(*Continued from page 121*)

minute and then cooling it rapidly—is practiced to some extent, but does not meet the accepted definition of the process. It also requires about 17 per cent more heat than does the longer but lower-temperature process. The general procedure is to pasteurize the milk before bottling, this method being less expensive than doing it after bottling.

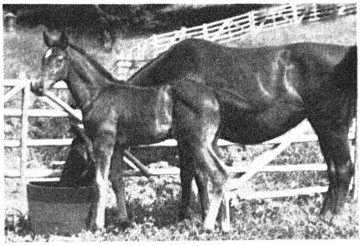
Hands do not touch the milk while it is being treated and they touch containers very little. If the milk arrives in cans, these cans are washed and scoured by machine before being returned to their owners. Bottles are washed mechanically and the process is so thorough as to leave no doubt as to their sterility. They pass directly from the washer to the bottling machine to minimize the danger of contamination after they are clean. The milk also passes immediately to the bottler after it is cooled. The bottling mechanism is an ingeniously contrived rotary table which fills and caps from 25 to 50 bottles a minute. Late-type machines fill bottles to the absolute limit of their capacity and put each cap in place without leaving a single drop on the lip. They reject chipped or cracked bottles automatically. As soon as the milk is bottled it passes to a room which is maintained at 40 degrees or less, where it remains until loaded for delivery.

(The above is based on an article by C. H. Vivian which appeared in THE COMPRESSED AIR MAGAZINE *for May 1933.*—EDITOR.)



"Comet" Carries Corning Colts

TWO thoroughbred colts, whose sires and dams have carried United States Representative Parker Corning's colors to victory on the leading American tracks on numerous occasions, rode the Delaware and Hudson "Comet," officially designated as Manifest Freight WM-3, on the last leg of a record-breaking trip from Boyce, Va., to their home stables at Kenwood, South Albany, N. Y.



Yes, the railroad suits him!

The two month-old foals, together with five mares and a gelding, were loaded into two cars by the Norfolk and Western at Boyce on Monday, June 26. A fast freight whisked them to Hagerstown where the Pennsylvania picked them up for the 192-mile run through the mountains to Hudson, Pa., our interchange point. Tuesday morning the two cars of thoroughbreds became a part of WM-3, which sped up over Ararat and across the Susquehanna Division. A quick run was made down Altamont hill, across Meadowdale flats, and into Kenwood, and soon the mares were back in their stalls at the Corning Farm, while the colts, having regained their "land legs," were curiously surveying the fields in which they will mature and receive their preliminary training before going forth to carry the green and yellow Corning colors in competition with the finest horses in the country.

The trip from Boyce to Albany was made in 27½ hours, lowering by two and one-half hours the previous record for the trip. The colts, both of which "have pedigrees as long as a barn roof," finished their trip in as fit condition as if they had never moved an inch.

More Records Fall!

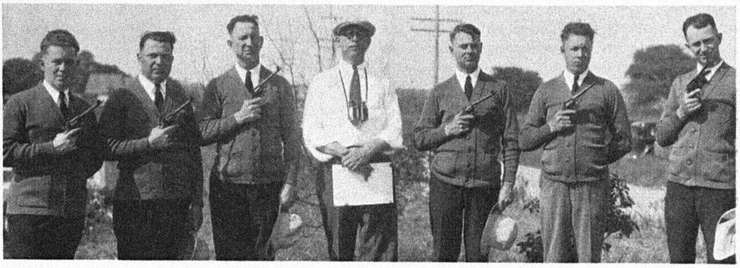
Police Pistol Team Establishes New Marks at Sea Girt

TWO national pistol records were set tottering, if not actually broken, and seven cash prizes and nine medals were won by members of the Delaware and Hudson Police Department Pistol Team in the Eastern Small Bore Tournament, at Sea, Girt, N. J., Saturday and Sunday, July 1 and 2.

On July 1 the team, in competition with four other police teams, shooting at the extremely difficult Standard American Target, fired 1390 out of a possible 1500, to establish a range record, and, as far as can be determined, a new world record for this course. PATROLMAN OVERBAUGH'S score of 287 in this match is understood to have established an individual record. The team scores were: Delaware and Hudson 1390, New Jersey State Police 1353, New York City Police 1318, Jersey City Police 1302, and Red Bank Police 1251.

Members of the Delaware and Hudson team won the first four places in the Rapid Fire Pistol Match in which there were 18 entrants, the following day. A gold medal was awarded PATROLMAN OVERBAUGH for winning first place with a score of 187; PATROLMAN RUSS' 186 earned him a silver medal; a bronze medal was presented to PATROLMAN PENNINGTON for his third place score of 177; and PATROLMAN MASKO, who also fired 177 but was judged fourth according to range rules, was given a cash prize.

Still another gold medal went to OVERBAUGH in the Time Fire Pistol Match for his high score of 190. He also won a cash award by finishing sixth in the Individual Police Pistol Match.



Left to right: *Patrolmen* DISNEY, RUSS, PENNINGTON, Chief THIESSEN *(Team Captain)*, *Patrolmen*, MASKO, OVERBAUGH and GRATCOFSKY

Three Feet of Sunshine

IN one of the laboratories of Washington there is a great sunglass that measures three feet across. It is like the burning glass we used to treasure when we were boys, only much larger. This great glass gathers the rays of the sun that strike its flat surface and focuses them on a single point in a space a few feet below. That single point is hotter than a blowtorch. It will melt through steel plate as easily as a red-hot needle burns through paper.

This terrible heat—it cannot be measured for it melts all instruments—is just three feet of ordinary sunshine, concentrated on a single point. Scattered, these rays are hardly felt—perhaps just pleasantly warm; concentrated, they melt adamant.

The same principle applies to human endeavor. Scattered, a man's energies do not amount to much; once they are focused on the task in hand, seemingly tremendous difficulties melt away, like snow on a hot stove.

Get the habit of concentrating when you start to do a thing—throw on all the steam you have and focus everything on the task in hand. Remember that three feet of ordinary sunshine concentrated will burn through anything.—*Roger W. Babson.*

Poison Ivy

Called by any other Name
The Effect is just the Same

WITH the advent of summer each year and the ensuing exodus from cities to country resorts, the problem of ivy poisoning presents itself anew.

Of the numerous plants which may cause irritation to the skin, there are two—poison ivy and poison sumac—which may never be handled without danger. The nature of the poison, the methods of transmission from plant to person, the treatment of the skin inflammation which it causes, and kindred phases of the problem were discussed by L. E. Warren of the United States Department of Agriculture in a recent radio talk presented under the auspices of Science Service. Salient points are quoted below:

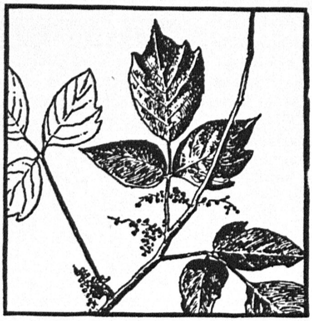
What Is Ivy Poisoning?

Ivy poisoning is a peculiar inflammation of the skin caused by coming in contact with poison ivy. Sumac poisoning is analogous. The symptoms range from slight redness and itching to enormous swelling with extensive blisters, accompanied by severe burning sensations. There are all gradations between these extremes. In mild cases the skin is covered with numerous small blisters. The blisters contain a colorless serum which is not poisonous; consequently poisoning can not spread from broken blisters. Pustules may form and infections may result as secondary consequences. The disease tends to recover in from ten days to three weeks. Occasionally a persistent dermatitis follows.

Recognizing Poison Ivy and Poison Sumac

Poison ivy is known by various names in different parts of the country, such as poison ivy, poison oak, poison vine, three-leafed ivy and poison creeper. The plant is found in practically every part of the continental United States, high mountains and deserts excepted. * * *

Poison ivy may be best recognized by its leaves and by its fruits. Each leaf is divided into three leaflets (never five as in the Virginia creeper). The margins of the leaflets vary from smooth to more or less notched. The small greenish flowers appear in May and June, the male and the female flowers being borne on separate plants. The fruits, which are of the size of a small pea, are pale green and poisonous when immature but ivory-white and not poisonous after ripening. The ripe fruits are filled with fat and are eaten by crows, woodpeckers and other birds. After the plants are a year or two old they develop aerial rootlets along the stems. These assist the plant in climbing. They also serve as an aid in identification. In the fall the leaves become brilliantly colored, principally scarlet and orange—a circumstance which victimizes many an unsuspecting collector. On being wounded the stems exude a cream-colored juice which becomes black on exposure to the air. The juice is thin and watery in the spring but becomes thicker as the season advances. The poisonous constituent is found is this juice.



Each leaf is divided in three

Poison sumac is also known as poison ash, poison dogwood, poison elder, poison tree, poison wood and thunderwood. It grows in swamps throughout the eastern half of the United States. It attains a height of from 5 to 20 feet and a trunk diameter of 4 to 10 inches. The bark of the shrub is light gray in color. The leaves are compound and are from 7 to 14 inches in length, each bearing from 7 to 13 leaflets. In autumn they take on wonderfully beautiful colors, brilliant reds, oranges and yellow predominating. * * * The fruit is a globular drupe of the size of a small pea and ivory-white when ripe.

When wounded poison sumac exudes a thick juice of the color and consistency of cream which is very poisonous. On exposure to the air the juice is converted into an almost indestructible black varnish, which is not poisonous. * * *

In 1895 Dr. Franz Pfaff, of the Harvard Medical School, proved by a series of carefully controlled experiments that the poison of poison ivy was neither a gas, an alkaloid nor a volatile acid, but that it was a liquid, nonvolatile substance having some of the properties of resins. It was so very poisonous that 1/16,000 of a grain of it, when dissolved in olive oil and rubbed on the skin, caused mild poisoning. Larger doses when given to rabbits by the stomach, caused death from inflammation of the kidneys, that is, Bright's disease.

The poisonous principle is found in the cell sap, in the green leaves and in the green fruits. It is not found in the pollen, or in the plant hairs which occur on the leaves and growing stems. Also the ripe leaves do not contain much of it.

The poisonous principle of poison ivy is probably identical with that of poison sumac. * * *

How Poisoning Takes Place

The poison of these plants not being volatile, the only way that one may be poisoned by them is to come into direct contact with the poison. This may result from touching the plants or from coming in contact with clothing, shoes, tools, and the like, which themselves have been contaminated with the sticky juice. The poison retains its virulence for a great length of time so that if contaminated clothing or tools be laid aside at the close of the season poisoning may result the next season on their use being resumed. * * * Smoke from the burning plants may carry minute particles of the poison. If this touches the skin or is breathed poisoning will result. Eating the leaves of the plants (as is sometimes done in the hope of producing immunity) will result in poisoning if appreciable quantities be digested. Smearing the juices of the plants on the body (for the production of immunity) has resulted in several very severe cases of poisoning.

Does Ivy Poisoning Ever Cause Death?

The question whether ivy poisoning ever causes death is unsettled. Instances are known where death has occurred during a severe attack of ivy poisoning, but these were under conditions such that the existence of previous kidney disease could not be ruled out. It is conceivable that a person with Bright's disease in an advanced stage might be severely poisoned and that the combination of the two diseases might prove disastrous, whereas neither alone would have been fatal immediately. At any rate, fatalities from ivy poisoning are rare.

Immunity

* * * Many people claim that they have worked frequently in and around poison ivy or poison sumac and have never been poisoned. They assume this to be proof of immunity. Also there are pharmaceutical preparations made from ivy or sumac which, when taken by intramuscular injection in small doses, are designed to render individuals partially immune to the poison. McNair has investigated the subject and he believes that immunity, or at least greatly lessened susceptibility, is possible. In the opinion of the speaker, also based upon considerable study, it seems very doubtful whether there are any persons who are naturally immune to the poison. The speaker has met several of these self-styled immunes but has found only one who was willing to submit to laboratory tests with the purified poison on the skin of the arm. This person was not immune.

How to Avoid Poisoning by Ivy, Oak or Sumac

Naturally the first requirement to avoid poisoning is to be able to recognize the poisonous plants at sight. The next is to avoid touching the plants or allowing the clothing to come in contact with them. Avoid using clothing or tools which have previously been contaminated with the juices of the plant until after they have been thoroughly scrubbed with soap suds. If a person should touch the poisonous plants, or has reason to suspect that he has done so, he should wash his hands or other exposed parts of the body with coal oil, rubbing alcohol or gasoline, avoiding the ethyl type of the latter and having due regard to the fire hazard. Afterward the parts should be thoroughly washed with strong soap suds, using a flesh brush and nail file. In the absence of the gasoline or denatured alcohol, the washing should be done with soapsuds alone. Avoid the use of cold creams or ointments of any kind as these dissolve the poison and tend to cause its spread by contaminating the clothing.

Unless one is able to identify these plants positively, the collection of brightly colored autumn foliage from climbing plants or those having aerial rootlets or from swamp shrubs should be avoided. Also while on outings, or while berry picking or hunting, contacts with thickets and tangled brushwood should be avoided as much as possible.

Junior Chooses a Career

"My son," began his fond parent, "do you you realize that you will soon be nine years old?" Have you by any chance decided upon a career?"

"What's a career, Daddy?" inquired Junior.

"I meant to ask if you have decided what you want to be when you grow up?"

Junior pondered a moment, and then replied: "Yes, Daddy, I want to be an Indian."

"An Indian!" gasped his father. "Great Scott! Why do you want to be an Indian?"

"Because," the boy answered, earnestly, "when you're an Indian you don't have to wash your face and hands, and nobody can tell if your neck's dirty, and if you don't want to talk to people you just grunt."—*Exchange*.

Clicks from the Rails

Cause of Depression

The fellow at the bottom of all these hard times has been disclosed by the *Illinois Central Magazine* to be the proud possessor of a shaving brush bought in 1906, thus nosing out the nearest contestant who boasts of having lathered his stubble for 15 years with the same implement. After 26 years and ten months our hero saw the error of his way and, a couple of months ago, purchased a new set of bristles, thus starting the nation-wide recovery we still hope for.

Missed Opportunity

Had not George M. Walker had a family of six children to consider he might have placed a mortgage on his home some 30 years ago, gone into partnership with a chap named Henry Ford and lost his rights as a conductor on the Canadian National by giving up his job. Just pensioned, after over 40 years' service, Mr. Walker says he has no regrets.

Loyal Hen

Far from biting the hand that feeds her, a hen that feeds on grain shaken from loaded box cars on the Santa Fe at Milan, N. M., enters the station waiting room every day and lays an egg. "She seems to feel the need of supporting the state's largest tax-payer more than many persons do," says V. L. Adair, acting agent.

Oldest Toy Railways

The appeal of railroads to the very young of all ages was capitalized at practically the same time that this form of transportation originated. *London Answers* relates that a model of Stephenson's *Rocket* was made in England in 1829, and sent as a present to Goethe, the famous German poet, by his English friends.

Mechanical Evidence

Whether or not the bell was rung and the whistle blown before the occurrence of grade crossing accidents on the Missouri Pacific Lines can be positively determined from the charts of the Sig-O-Graph which has been installed on a number of locomotives for test purposes. Designed by the inventor of the Impact Recorder, the device tells the time prescribed warning signals are given and, in addition, the time the crossing is subsequently reached, as well as showing the time at which a brake application was made. Like the impact recorder, the device acts as a check on the performance of the engine driver even though the trip may be completed without accident.

Brave Engineman Decorated

Lake Shore Electric train 207 was traveling 60 miles an hour when William Lang, at the controls, spied an object on the track ahead. Realizing suddenly that the object was a child, he did all he could to stop the train, but saw that it was not enough. Opening the trap door he swung himself out onto the coupler and lifted the child to safety, thus earning the bronze medal of honor bestowed by the President of the United States.

New Book of Poems

Si Tanhauser, Poet Laureate of the Long Island Railroad, has just published a second volume of poetry, "Songs of Horticulture," a collection of 53 original poems in simple rhyme and blank verse, featuring trees, flowers and shrubs. Four years ago he wrote "Rhymes of the Sunrise Trail," the first book of verse to be published glorifying Long Island. Tanhauser has worked on 20 different lines in the United States, Canada and Mexico during the last three decades, being station agent at Springfield Gardens at present.

West Pointer

For three years Arthur W. Tyson of the Auditing Department, Central of Georgia Railway, tried in vain to secure a congressional appointment to West Point so he resigned and enlisted in the regular army. Winning an appointment to the military academy in this way he graduated this year and was commissioned a second lieutenant in the infantry of the United States Army.

Porter "Doctors" Passenger

A Denver man, on boarding a westbound train out of Philadelphia feared that he had an attack of pneumonia coming on so he asked the porter if he could obtain a certain medicament. A wire to Fort Wayne obtained the necessary material and the porter put the patient to bed and gave him four rubbings during the night, with the result that he left the train greatly improved.

Prevents Wreck

L. H. Luckey, Central of Georgia operator likes to look 'em over so he switches on a big 400-watt light when the trains are passing, thus getting a good view of the running gear. Noticing a brake beam down under a loaded car, he stopped the train crew and the car was set out before any damage had been done.

Dangers of Train Hopping

Canadian National train number 47 recently made an unscheduled stop between stations due to two train-riders who had climbed on the tender uninvited. One of them had the misfortune to slip down the coal chute leading to the stoker. His comrade yelled to the engine crew, and, after half an hours' work the "foreign matter" was dislodged and charged with trespassing.

Nightfall

Dark trees,
Flaming sky,
Silver moon
Riding high;
Up the hill
White mists creep;
All the world
Lies down to sleep.

—WINIFRED E. RICH.